

**PATENT COOPERATION TREATY**

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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**PCT**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)	<b>20 JUN 2005</b>
Applicant's or agent's file reference  UCSD1620WO		FOR FURTHER ACTION See paragraph 2 below	
International application No.  PCT/US04/22718	International filing date (day/month/year)  28 June 2004 (28.06.2004)	Priority date (day/month/year)  01 July 2003 (01.07.2003)	
International Patent Classification (IPC) or both national classification and IPC  IPC(7): A01N 63/00; A61K 48/00 and US Cl.: 424/93.2			
Applicant  THE REGENTS OF THE UNIVERSITY OF CALIFORNIA			

1. This opinion contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input checked="" type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

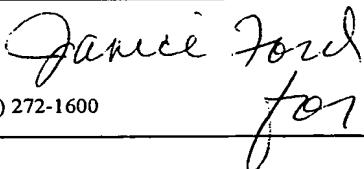
**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US  Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Brian Whiteman Telephone No. (571) 272-1600	
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Form PCT/ISA/237 (cover sheet) (January 2004)

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INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/22718

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

a sequence listing  
 table(s) related to the sequence listing

b. format of material

in written format  
 in computer readable form

c. time of filing/furnishing

contained in international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.

3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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**Box No. IV Lack of unity of invention**

1.  In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:  
 paid additional fees  
 paid additional fees under protest  
 not paid additional fees
2.  This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is  
 complied with  
 not complied with for the following reasons:

See the lack of unity section of the International Search Report (Form PCT/ISA/210)

4. Consequently, this opinion has been established in respect of the following parts of the international application:

all parts.  
 the parts relating to claims Nos. 1-14 and 24-29

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**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims <u>8-11, 24-29</u>	YES
	Claims <u>1-7, 12-14</u>	NO
Inventive step (IS)	Claims <u>8-11, 24-29</u>	YES
	Claims <u>1-7, 12-14</u>	NO
Industrial applicability (IA)	Claims <u>1-14, 24-29</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-7 and 12-14 lack novelty under PCT Article 33(2) as being anticipated by SUAREZ et al. SUAREZ et al. teach in vivo adenoviral gene transfer of sorcin increases cardiac contractility.

Claims 1-7 and 12-14 lack an inventive step under PCT Article 33(3) as being obvious over SUAREZ et al. SUAREZ et al. teach in vivo adenoviral gene transfer of sorcin increases cardiac contractility.

Claims 8-11 and 24-29 meet the criteria set out in PCT Article 33(2) and (3), because the prior art does not teach or fairly suggest a method of treating or preventing heart failure in a subject comprising administration of an adenoviral vector encoding sorcin to the subject.

Claims 1-14 and 24-29 the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry for overexpressing sorcin in the heart in a subject.

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**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claim 1 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claim 1 indefinite for the following reason(s): the material used to increase cardiac contractile in a subject comprising altering the expression of sorc in the heart is not recited in the claim.